

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2005-20081; Directorate Identifier 2004-NM-132-AD; Amendment 39-14080; AD 2005-10-03]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 777-200 and 777-300 Series Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain Boeing Model 777-200 and -300 series airplanes. This AD requires modification of the operational program software (OPS) of the air data inertial reference unit (ADIRU). This AD is prompted by a report of the display of erroneous heading information to the pilot due to a defect in the OPS of the ADIRU. We are issuing this AD to prevent the display of erroneous heading information to the pilot, which could result in loss of the main sources of attitude data, consequent high pilot workload, and subsequent deviation from the intended flight path.

DATES: This AD becomes effective June 15, 2005.

The incorporation by reference of certain publications listed in the AD is approved by the Director of the Federal Register as of June 15, 2005.

ADDRESSES: For service information identified in this AD, contact Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207.

Docket: The AD docket contains the proposed AD, comments, and any final disposition. You can examine the AD docket on the Internet at <http://dms.dot.gov>, or in person at the Docket Management Facility office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Management Facility office (telephone (800) 647-5227) is located on the plaza level of the Nassif Building at the U.S. Department of Transportation, 400 Seventh Street SW., room PL-401, Washington, DC. This docket number is FAA-2005-20081; the directorate identifier for this docket is 2004-NM-132-AD.

FOR FURTHER INFORMATION CONTACT: Paul Feider, Aerospace Engineer, Systems and Equipment Branch, ANM-130S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 917-6467; fax (425) 917-6590.

SUPPLEMENTARY INFORMATION: The FAA proposed to amend 14 CFR part 39 with an AD for certain Boeing Model 777-200 and -300 series airplanes. That action, published in the Federal Register on January 19, 2005 (70 FR 2980), proposed to require modification of the operational program software (OPS) of the air data inertial reference unit (ADIRU).

Comments

We provided the public the opportunity to participate in the development of this AD. We have considered the comments that have been submitted on the proposed AD.

Support for the Proposed AD

One commenter supports the proposed AD and states that it is appropriate because it will prevent future occurrences of erroneous heading information being presented to the pilot. Another commenter states that it understands the need for the modification to the affected OPS of the ADIRU and does not have any objection to the proposed AD. The second commenter adds that the modification was accomplished on all its Model 777 series airplanes in calendar year 2002.

Request To Add New Service Information

Two commenters ask that Boeing Service Bulletin 777-34-0094, dated June 10, 2004, be added to the proposed AD as an additional source of service information for accomplishing the modification of the OPS of the ADIRU.

One commenter, the airplane manufacturer, states that the new service bulletin provides procedures for installation of a newer version of the OPS of the ADIRU, which contains the fix required by the proposed AD. The commenter suggests adding the new service bulletin to paragraph (f) of the proposed AD as an option for accomplishing the modification in the proposed AD, instead of using the service bulletin currently referenced.

Another commenter states that it is concerned about any wording in the proposed AD that may affect and impact any future installations of new OPS of the ADIRU. The commenter adds that it is imperative that the proposed AD address this issue as Boeing has already released a new service bulletin. The commenter notes that the new service bulletin contains information for updating the existing software with an adjusted Mach function; the proposed AD would mandate installation of previous OPS of the ADIRU per Boeing Service Bulletin 777-34A0082, Revision 1, dated December 19, 2002. The commenter has already incorporated the installation of OPS of the ADIRU per the mandated bulletin, and has also incorporated the installation of OPS of the ADIRU per Service Bulletin 777-34-0094. The commenter is concerned that an Alternative Method of Compliance (AMOC) may now be required for any operator that has incorporated or will incorporate software upgrades in the future.

We agree with the intent of the commenters' requests to reference Boeing Service Bulletin 777-34-0094, we have reviewed the service bulletin and we determined that it addresses the unsafe condition appropriately. Therefore, we have changed paragraph (f) of this final rule to include that service bulletin as an additional appropriate source of service information for accomplishing the modification. However, regarding future upgrades of the OPS of the ADIRU per the issuance of future service information; we cannot accept as-yet unpublished service documents for compliance with the requirements of an AD. Referring to an unavailable service bulletin in an AD to allow operators to use later revisions of the referenced documents (issued after publication of the AD)

violates Office of the Federal Register regulations for approving materials that are incorporated by reference. However, under the provisions of paragraph (g) of this AD, affected operators may request approval to use a later revision of the referenced service bulletin as an AMOC.

Conclusion

We have carefully reviewed the available data, including the comments that have been submitted, and determined that air safety and the public interest require adopting the AD with the change described previously. This change will neither increase the economic burden on any operator nor increase the scope of the AD.

Costs of Compliance

There are about 409 airplanes of the affected design in the worldwide fleet. This AD affects about 130 airplanes of U.S. registry. The actions take about 1 work hour per airplane, at an average labor rate of \$65 per work hour. Required parts are free of charge. Based on these figures, the estimated cost of the AD for U.S. operators is \$8,450, or \$65 per airplane.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We have determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the National Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866;
- (2) Is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this AD. See the ADDRESSES section for a location to examine the regulatory evaluation.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

AIRWORTHINESS DIRECTIVE



Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "www.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2005-10-03 Boeing: Amendment 39-14080. Docket No. FAA-2005-20081; Directorate Identifier 2004-NM-132-AD.

Effective Date

- (a) This AD becomes effective June 15, 2005.

Affected ADs

- (b) None.

Applicability

- (c) This AD applies to Boeing Model 777-200 and -300 series airplanes, certificated in any category; as listed in Boeing Service Bulletin 777-34A0082, Revision 1, dated December 19, 2002.

Unsafe Condition

- (d) This AD was prompted by a report of the display of erroneous heading information to the pilot due to a defect in the operational program software (OPS) of the air data inertial reference unit (ADIRU). The Federal Aviation Administration is issuing this AD to prevent the display of erroneous heading information to the pilot, which could result in loss of the main sources of attitude data, consequent high pilot workload, and subsequent deviation from the intended flight path.

Compliance

- (e) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

Modification

- (f) Within 6 months after the effective date of this AD: Modify the OPS of the ADIRU by doing the applicable actions specified in the Accomplishment Instructions of Boeing Service Bulletin 777-34A0082, Revision 1, dated December 19, 2002, or Boeing Service Bulletin 777-34-0094, dated June 10, 2004.

Alternative Methods of Compliance (AMOCs)

(g) The Manager, Seattle Aircraft Certification Office, FAA, has the authority to approve AMOCs for this AD, if requested in accordance with the procedures found in 14 CFR 39.19.

Material Incorporated by Reference

(h) You must use Boeing Service Bulletin 777-34A0082, Revision 1, dated December 19, 2002; or Boeing Service Bulletin 777-34-0094, dated June 10, 2004; to perform the actions that are required by this AD, unless the AD specifies otherwise. The Director of the Federal Register approves the incorporation by reference of these documents in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. To get copies of the service information, contact Boeing Commercial Airplanes, P.O. Box 3707, Seattle, Washington 98124-2207. To view the AD docket, go to the Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street, SW., room PL-401, Nassif Building, Washington, DC. To review copies of the service information, go to the National Archives and Records Administration (NARA). For information on the availability of this material at the NARA, call (202) 741-6030, or go to http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Issued in Renton, Washington, on April 29, 2005.

Ali Bahrami,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 05-9198 Filed 5-10-05; 8:45 am]

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